

REMARKS/ARGUMENTS

Regarding Amendments

In the specification, the "Cross Reference to Related Applications" section has been amended to update the status of referenced applications. These corrections are of a clerical nature and do not add "new matter".

Claims 1-19 are now pending.

Claims 1-7 and 9-15 stand allowed. The Examiner is thanked for his kind allowance of claims 1-7 and 9-15.

Claims 8 and 16 have been amended to further particularly point out and distinctly claim subject matter regarded as the invention.

New claim 19 has been added by this Amendment and also particularly points out and distinctly claims subject matter regarded as the invention.

The Amendment also contains minor changes of a clerical nature. No "new matter" has been added by the Amendment.

The 35 U.S.C. §112, Second Paragraph Rejection

Claims 8 and 16 stand rejected under 35 U.S.C. §112, second paragraph, as being allegedly indefinite for failing to particularly point out and distinctly claim the subject matter applicant regards as the invention.¹ With this Amendment it is respectfully submitted the claims satisfy the statutory requirements.

The 35 U.S.C. §103 Rejection

Claims 16-18 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Carter et al.² in view of Levy et al.³, among which claim 16 is an independent claim. This rejection is respectfully traversed.

According to the M.P.E.P.,

To establish a *prima facie* case of obviousness, three basic criteria must be met. First there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in the applicant's disclosure.⁴

I. Carter et al. and Levy et al. Do Not Teach or Suggest All Claim Limitations

When evaluating a claim for determining obvious, all limitations of the claim must be evaluated. 35 USC § 103 provides that:

¹ Office Action dated September 23, 2003, ¶ 2.

² U.S. Patent No. 6,519,767.

³ U.S. Patent No. 6,092,147.

⁴ M.P.E.P. §2143.

A patent may not be obtained ... if the differences between the subject matter sought to be patented and the prior art are such that the *subject matter as a whole* would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains...⁵

Claim 16 as amended recites:

A resource-constrained device, comprising:
memory for providing a remotely verified application software program including at least one program unit, each program unit comprising an Application Programming Interface (API) definition file and an implementation, each API definition file defining items in its associated program unit that are made accessible to one or more other program units, each implementation including executable code corresponding to said API definition file, said executable code including type specific instructions and data, said remote verification including verifying a second version of a first program unit implementation is binary compatible with a first version of said first program unit implementation by comparing said first version of said first program unit API definition file and said second version of said first program unit API definition file; and
a virtual machine that is capable of executing instructions included within said application software program.

The Examiner contends Carter et al. discloses:

Memory for providing a remotely verified application software program comprising at least one program unit (col. 8 lines 8-25, "automatic version compatible object server building process...."), each program unit comprising type specific instructions and data (col. 4 lines 56 67, "version compatibility... against type information.....), said remote verification including verifying a second version of a first program unit implementation is binary compatible first version of said first program unit implementation by comparing said first version of said first program unit and said second version of said first program unit (col. 8 lines 8-25, and Fig. 5 col. 10 line 60 to col. 12 line 62, "automatic version compatible object server building process.....).⁶

Contrary to the Examiner's statement, Carter et al. does not teach "each program unit comprising an Application Programming Interface (API) definition file *and* an implementation".

⁵ 35 USC § 103. (emphasis added)

⁶ Office Action ¶ 3.

Carter et al. teaches that OLE provides API functions.⁷ But client applications in Carter et al. have *embedded* (i.e. not separate) assumptions concerning the object server's library.⁸ Carter et al. teaches:

When built against a specific object server, the client application will have *embedded in it* detailed assumptions about the set of interfaces that the object server supports, and the definition of those interfaces.⁹

Carter et al. teaches further:

... version compatibility analysis is performed by comparing the program against type information which was generated during compiling the existing object server and retained in a type library. The type library forms part of the existing object server's *executable* program file (the existing object server's ".exe" file).¹⁰

Carter et al. does not teach an API *and* an implementation as claimed in claim 16. The Examiner is reminded that the mere absence from a reference of an explicit requirement of a claim cannot be reasonably construed as an affirmative statement that the requirement is in the reference.¹¹

For this reason, the Examiner has failed to make a *prima facie* case of obviousness so the 35 U.S.C. § 103 rejection should be withdrawn.

Additionally, contrary to the Examiner's statement, the fact that Carter et al. teaches using an API file to create a program does not make remote verification using APIs as claimed in claim 16 obvious. The Examiner states:

⁷ Carter et al. col. 2 line 66 to col. 3 line 8.

⁸ Carter et al. col. 2 lines 12-14.

⁹ Carter et al. col. 2 lines 4-8. (emphasis added)

¹⁰ Carter et al. col. 4 lines 58-63. (emphasis added)

¹¹ *In re Evanega*, 829 F.2d 1110, 4 USPQ2d 1249 (Fed. Cir. 1987).

Carter et al does not explicitly disclose remote verification utilizing an application programming interface definition file. However, Carter does disclose that API file are used to create program (col. 2 lines 1-9 and col. 2 line 66 to col. 3 line b 1). Therefore it would have been obvious to one having ordinary skill in the art to have remote verification utilizing an application programming interface definition file because one would want to use the API file to identify the compatibility between various version of the programs.¹²

The Applicant submits the reasons for combining the teachings of Carter et al. as suggested by the Examiner do not constitute particular findings as required by the Federal Circuit. The Federal Circuit has stated:

The motivation, suggestion or teaching may come explicitly from statements in the prior art, the knowledge of one of ordinary skill in the art, or, in some cases the nature of the problem to be solved. In addition, the teaching, motivation or suggestion may be implicit from the prior art as a whole, rather than expressly stated in the references. ... The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art. ... Whether the Board relies on an express or an implicit showing, it must provide particular findings related thereto. Broad conclusory statements standing alone are not "evidence."¹³

The Examiner's broad conclusory statement that combining the teachings of Carter et al. would be obvious because "one would want to use the API file to identify the compatibility between various version of the programs" standing alone is not evidence. As pointed out above, Carter et al. does not teach separate implementations *and* API files for *each* program unit.

For this additional reason, the Examiner has failed to make a *prima facie* case of obviousness so the 35 U.S.C. § 103 rejection should be withdrawn.

¹² Office Action dated September 23, 2003, ¶ 3.

¹³ *In re Kotzab*, 217 F.3d 1370, 55 USPQ2d 1317 (Fed. Cir. 2000) (citations omitted).

Accordingly, it is respectfully requested that the 35 U.S.C. § 103 rejection of claim 16 based on Carter et al. in view of Levy et al. be withdrawn.

Dependent Claims

Claims 17 and 18 depend from claim 16 and thus include the limitations of claim 16. The argument set forth above is equally applicable here. The base claim being allowable, the dependent claims must also be allowable at least for the same reasons.

2. There Is No Basis in the Art for Combining or Modifying Carter et al.

MPEP § 2143 provides:

The mere fact that references *can* be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination.¹⁴

Furthermore,

Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination.¹⁵

Regarding the motivation to combine Carter et al. and Levy et al., the Examiner contends:

Carter et al further does not explicitly disclose a virtual machine that is capable of executing instructions included within said application software program. However, Levy et al does disclose a virtual machine that is capable of executing instructions included within said application software program (col. 9 lines 25-37). Therefore it would have been obvious to one having ordinary skill in the art to incorporate the teaching of

¹⁴ *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990). (emphasis added)

¹⁵ *ACS Hospital Systems, Inc. v. Montefiore Hospital*, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984).

Levy et al into Carter et al to have a virtual machine that is capable of executing instructions included within said application software program because one would want to utilize a virtual machine to complete the verification that can not be carried out before run-time.¹⁶

The Applicants submit the reasons for the combination of references suggested by the Examiner do not constitute particular findings as required by the Federal Circuit. Again, the Federal Circuit has stated:

The motivation, suggestion or teaching may come explicitly from statements in the prior art, the knowledge of one of ordinary skill in the art, or, in some cases the nature of the problem to be solved. In addition, the teaching, motivation or suggestion may be implicit from the prior art as a whole, rather than expressly stated in the references. ... The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art. ... Whether the Board relies on an express or an implicit showing, it must provide particular findings related thereto. Broad conclusory statements standing alone are not "evidence."¹⁷

The Examiner's broad conclusory statement that combining the two references would be obvious because "one would want to utilize a virtual machine to complete the verification that cannot be carried out before run-time" standing alone is not evidence.

Moreover, the Applicant respectfully submits that if the type information which was generated during compilation of an object server was retained in a type library that formed part of an existing server's executable program file, there would be no motivation to compare an API with another API as the type information would already be fully specified by the library files embedded in the executable program files.

¹⁶ Office Action dated September 23, 2003, ¶ 3.

¹⁷ *In re Kotzab*, 217 F.3d 1370, 55 USPQ2d 1317 (Fed. Cir. 2000) (citations omitted).

For these additional reasons, the 35 U.S.C. § 103 rejection is unsupported by the art. Thus, no prima facie case of obviousness has been established and the 35 U.S.C. § 103 rejection should be withdrawn.

3. Neither Carter et al. Nor Levy et al. Teaches The Problem Or Its Source

Carter et al. is directed to a system compiler and method for automatically building version compatible object applications. More particularly, Carter et al. discloses automatically building a new version of an object server to be compatible with an existing version so that client applications built against the existing version are operable with the new version.¹⁸

Levy et al. is directed to a virtual machine with securely distributed bytecode verification. More particularly, Levy et al. discloses a system for testing bytecodes against a set of predetermined criteria in which the testing is securely distributed between the virtual machine and the computing system so that the bytecode verification completed by the computing system is authenticated by the virtual machine prior to the execution of the bytecodes by the virtual machine.¹⁹

Whereas the art of the present invention concerns determining remote *incremental* program *binary compatibility* (i.e. compatibility *between* binaries) using API definitions. Neither

¹⁸ Carter et al. Abstract.

¹⁹ Levy et al. Abstract.

Carter et al. nor Levy et al. recognized the need for determining binary compatibility on a resource-constrained device. Therefore, the Applicant submits there would be no motivation to combine the teachings of Carter et al. with the teachings of Levy et al.

For this additional reason, the 35 U.S.C. § 103 rejection is unsupported by the art. Thus, no prima facie case of obviousness has been established and the 35 U.S.C. § 103 rejection should be withdrawn.

In view of the foregoing, it is respectfully asserted that the claims are now in condition for allowance.

Request for Allowance

It is believed that this Amendment places the above-identified patent application into condition for allowance. Early favorable consideration of this Amendment is earnestly solicited.

Allowable Subject Matter

The Examiner is thanked for the kind allowance of claim 8 if rewritten to overcome the rejections under 35 U.S.C. 112, second paragraph, and to include all of the limitations of the base claim and any intervening claims. New claim 19 represents claim 8 rewritten to overcome the rejections under 35 U.S.C. 112, second paragraph, and to include all of the limitations of the base claim and any intervening claims.

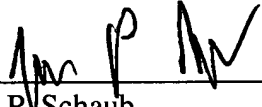
Appl. No. 09/661,684
Amdt. dated: December 10, 2003
Reply to Office Action of September 23, 2003

Docket No. SUN-P4174
(811173-000093)

If, in the opinion of the Examiner, an interview would expedite the prosecution of this application, the Examiner is invited to call the undersigned attorney at the number indicated below.

Respectfully submitted,
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